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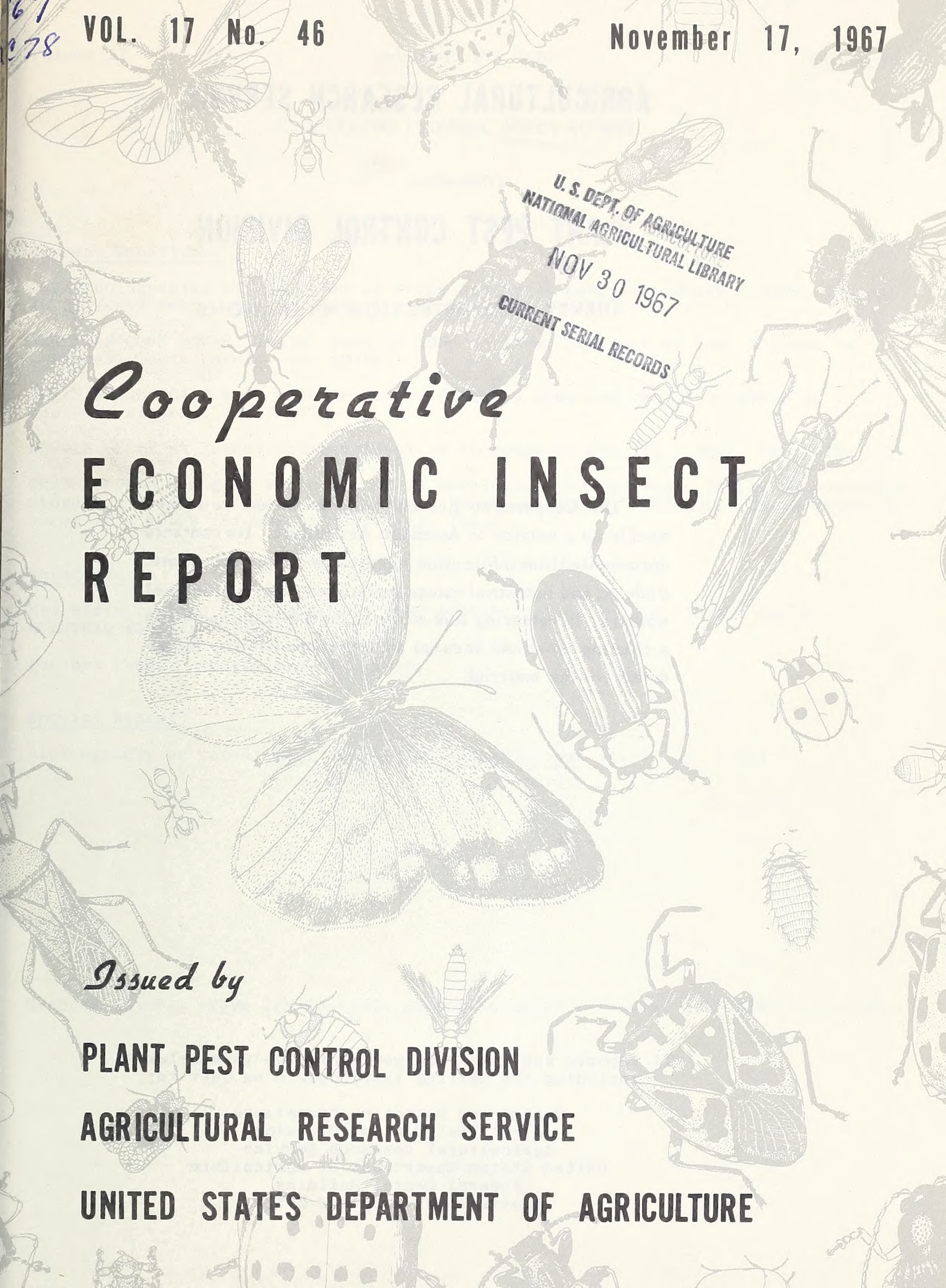

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Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782

Volume 17 November 17, 1967 Number 46

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

GREENBUG damaging winter wheat in Tripp and Brule Counties, South Dakota; present in 26 Texas Panhandle counties surveyed. (p. 1011).

EUROPEAN CORN BORER lighter than in 1966 in Iowa; heaviest in last 5 years in northeast South Dakota. (p. 1011).

WHITE PEACH SCALE more widespread and damaging than for past 5-10 years in southern Alabama. (p. 1013).

PURPLE SCALE at lowest October level in 10 years on Florida citrus. (p. 1013).

GRASSHOPPERS damaging winter wheat in Pennington County, South Dakota; populations above normal in southeast and northwest areas of Iowa. PINK BOLLWORM infestation worst in 4 years throughout Texas. (p. 1015).

Detection

New State records include CLOVER SEED WEEVIL in Missouri (p. 1012) and a EULOPHID WASP in Nebraska (p. 1015).

For new county records see page 1015.

Special Report

Bibliography on Cereal Leaf Beetle (*Oulema melanopus* (L.)). (p. 1017).

Reports in this issue are for week ending November 10 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING NOVEMBER 13

HIGHLIGHTS: Warm weather prevailed over the Far West, in the northern and central Great Plains while cool weather persisted over the South and East until the weekend. Rains fell in the Far Northwest and from Texas to the Great Lakes and New England.

PRECIPITATION: There were two main precipitation areas. The Far Northwest received their rains mostly late in the week. Three to five inches fell along the Washington coast with lighter rains inland as far as western Montana. Snow fell in the mountains. The other precipitation area extended from Texas to the Great Lakes and New England. Rains were heaviest in central Texas where Taylor received more than 5 inches. These "cold front" rains occurred late in the week over the northern Plains and over the weekend along the southern edge of the rainy belt. A few snow flurries were noted from northern Kentucky to Pennsylvania early in the week and thunder showers occurred in Pennsylvania on Sunday. Wide areas from California and Arizona to South Dakota and southern Minnesota received no precipitation during the week. Another rainless area extended from southern Louisiana to southern New Jersey and southeastward to central Florida.

TEMPERATURE: Freezing temperatures were widespread early in the week. On Tuesday morning, freezing weather occurred over inland portions of Washington and Oregon, the mountains in California, and eastward across the Southern States to northern Florida where Tallahassee registered 30°. Many areas from the northern and central Rockies to the Great Lakes registered temperatures from 10° to 20°. In spite of the cold beginning, the West warmed rapidly and maximums in the 50's, 60's, and 70's were common by the weekend. Temperatures over the Great Basin averaged up to 10° above normal. In the East, the cool weather presisted until the week end. Daily minimums in the 20's were common in South Carolina until the 8th and Georgia reported one of the most persistent early season cold spells on record. The cold beginning in the East was followed by a sharp warming trend over the weekend. Washington, D. C., registered 76° on Sunday. Notwithstanding the mild weekend, most of the area from Texas to Michigan and eastward to the Atlantic Ocean averaged cooler than normal. Coastal areas from northern Florida to New England averaged 6° to 9° below normal. (Summary supplied by Environmental Data Service, ESSA.)

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMYWORM (Pseudaletia unipuncta) - MICHIGAN - Still flying at blacklight station in Livingston County October 30 to November 5. (Newman).

CORN EARWORM (Heliothis zea) - IOWA - Fall survey showed infestation lower than in 1966. Percent of corn ears showing damage average 3.49 for State compared with 5.08 in 1966. (Iowa Ins. Inf., Oct. 23).

GREENBUG (Schizaphis graminum) - SOUTH DAKOTA - Some decrease noted in wheat near Winner, Tripp County, week ending October 27. Damage reported in winter wheat near Chamberlain, Brule County, and near Platte, Charles Mix County. Some experimental spraying on small acreages near Winner. (Kantack, Nov. 3). Still abundant, up to 100 aphids per plant, in winter wheat near Winner, Tripp County; several acres of early planted wheat killed. (Jones). KANSAS - Unchanged in early planted wheat in south-central, southwest, and west-central districts past 3 weeks; 2 Scott County fields heavily infested October 20 now destroyed. (Simpson). OKLAHOMA - Counts per linear foot in wheat by county: Tillman less than 2; Jackson 6; Harmon 7; Grady less than 3. (Okla. Coop. Sur.). ARKANSAS - Survey continued negative in northwest area. (Boyer). TEXAS - Found in all of 26 panhandle counties surveyed October 23-November 3. Ranged 5-30 per row foot in Deaf Smith, Oldham, Castro, Swisher, Briscoe, and Hall Counties; generally less than 20 per row foot in other counties. Predators, mostly Hippodamia convergens and Nabis ferus, in most counties. (Daniels).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Wingless and winged forms averaged 0.25 teaspoon per 25 sweeps in alfalfa near Alameda, Bernalillo County. (Heninger). ARKANSAS - Survey continues negative in northwest area. (Boyer). MISSISSIPPI - Adults and nymphs light on Pontotoc County alfalfa. (Dinkins).

TOBACCO BUDWORM (Heliothis virescens) - CALIFORNIA - Damage moderate to roses in Shafter, Kern County. (Cal. Coop. Rpt.).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - SOUTH DAKOTA - Fall survey completed. Populations decreased or remained light in south-central, southeast, east-central, central, and north-central districts. Some increase in northeast district where average of 155 larvae per 100 stalks heaviest in last 5 years; increase greatest in Day, Grant, and Roberts Counties. (Jones). NEBRASKA - Numbers much lighter in east, southeast, and central districts than in 1966. (Keith). IOWA - Fall survey showed borer populations lower in all districts than in 1966. Full-grown borers collected in Boone County showed no infection of Perezia sp. (a protozoan disease). (Iowa Ins. Inf., Oct. 23).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - ALABAMA - Fall survey completed; negative in Montgomery, Elmore, and Crenshaw Counties. Previously reported for first time in Jackson, Chilton, Autauga, and Lowndes Counties. Now known to occur in 34 counties. (McQueen, Nov. 3).

CORN ROOTWORMS (Diabrotica spp.) - IOWA - Fall survey showed 8.08 percent of cornstalks lodged compared with 6.92 percent in 1966. (Iowa Ins. Inf., Oct. 23).

TURF, PASTURES, RANGELAND

AN OLETHREUTID MOTH (Bactra verutana chrysea) - CALIFORNIA - Larvae heavy in nutgrass in McFarland, Kern County. (Cal. Coop. Rpt.).

BLACK CUTWORM (Agrotis ipsilon) - MICHIGAN - Still flying at blacklight station in Livingston County October 30 to November 5. (Newman).

FORAGE LEGUMES

CLOVER SEED WEEVIL (Miccotrogus picirostris) - MISSOURI - Adults swept from red clover in Schuyler and Sullivan Counties July 18, 1967. This is a new State record. Collected by R. E. Munson and L. R. Hanning. Det. by R. E. Warner. (Munson).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - OKLAHOMA - Averaged 4 per 10 sweeps on Tillman County alfalfa. (Okla. Coop. Sur.). ARKANSAS - Light, 8-10 per 100 sweeps, in northwest area alfalfa. (Boyer).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Averaged 230 per 100 sweeps in Pinal County alfalfa. (Ariz. Coop. Sur.). NEW MEXICO - Adult average per 25 sweeps in alfalfa by county: Hidalgo 12 (Elson); Valencia 0-2 near Belen (Heninger). OKLAHOMA - Averaged 9 per 10 sweeps on Tillman County alfalfa. (Okla. Coop. Sur.). ARKANSAS - Active on warm days in northwest area alfalfa; 4-6 per 100 sweeps. (Boyer).

PEA APHID (Acyrthosiphon pisum) - MISSISSIPPI - Adults and nymphs light to moderate on Pontotoc and Oktibbeha County alfalfa. (Dinkins). ARKANSAS - Light, 10-15 per 100 sweeps, in northwest area alfalfa. (Boyer). NEW MEXICO - Mostly light to very light in Chaves County alfalfa. (Mathews).

LYGUS BUGS (Lygus spp.) - NEW MEXICO - Averaged 18 adults per 25 sweeps in alfalfa near Cotton City, Hidalgo County. (Elson). ARIZONA - Decreasing in Maricopa and Pinal County alfalfa; average 70 per 100 sweeps. (Ariz. Coop. Sur.).

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Averaged 40 per 100 sweeps on Maricopa County alfalfa. (Ariz. Coop. Sur.).

COTTON

BOLL WEEVIL (Anthonomus grandis) - ALABAMA - High numbers of adults, larvae, and pupae throughout State now deprived of all food several weeks earlier than normal; all cotton killed by subfreezing temperatures in northern and central areas; low temperatures may affect overwintering adults. (McQueen).

For Boll Weevil complex in California, see page 1015.

SUGARBEETS

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Damage moderate to young center growth in Maricopa County. (Ariz. Coop. Sur.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Damaging margins of many fields in Maricopa County; aluminum barriers installed and several rows replanted. (Ariz. Coop. Sur.).

POTATOES, TOMATOES, PEPPERS

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - CALIFORNIA - Adults heavy on eggplant plantings in Arlington, Riverside County. (Cal. Coop. Rpt.).

COLE CROPS

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Adults moderate on 80 acres of untreated cauliflower in Glendale area, Maricopa County. (Ariz. Coop. Sur.). ALABAMA - Larvae light to moderate on commercial cabbage plantings in Mobile County. (Vickery).

IMPORTED CABBAGEWORM (Pieris rapae) - ALABAMA - Larvae light to moderate on commercial cabbage plantings in Mobile County. (Vickery).

GENERAL VEGETABLES

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Young larvae ranged up to 200 per 100 sweeps in 200 acres of young carrots in Phoenix area, Maricopa County; controls in progress. (Ariz. Coop. Sur.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Averaged 150 per 100 sweeps in 200 acres of nearly mature carrots in Phoenix, Maricopa County. (Ariz. Coop. Sur.).

DECIDUOUS FRUITS AND NUTS

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - ALABAMA - Heavy on peach, plum, persimmon, Chinaberry, mulberry, and occasionally mimosa in southern area; more widespread and damaging than for past 5-10 years. (Deakle et al.).

CITRUS

Citrus Insect Situation in Florida - End of October - CITRUS RUST MITE (Phyllocoptruta oleivora) infested leaves in 80 percent of groves (norm 67 percent); 64 percent economic (norm 47 percent). Infested fruit in 76 percent of groves (norm 73 percent); 60 percent economic (norm 52 percent). Population decreased slightly but still near record high October level. Further decrease expected, but will continue above normal and in high range in most districts. All districts high. TEXAS CITRUS MITE (Eutetranychus banksi) infested 16 percent of groves (norm 24 percent); 7 percent economic (norm 7 percent). Population below normal and in low range. Some heavy infestations starting to appear in scattered locations; more expected. Highest district north. CITRUS RED MITE (Panonychus citri) infested 23 percent of groves (norm 31 percent); 6 percent economic (norm 8 percent). Population still below normal and in low range. Expected increase will lead to important infestations, especially in young groves where rainfall scanty. Highest districts west and north. GLOVER SCALE (Lepidosaphes gloverii) infested 69 percent of groves; 5 percent economic. Population still slightly below normal but is increasing; will move to moderate range. Highest districts south, west, and east. PURPLE SCALE (L. beckii) infested 42 percent of groves; less than 1 percent economic. Population at lowest October level in 10 years; will remain uniformly low in all districts. YELLOW SCALE (Aonidiella citrina) infested 60 percent of groves; 4 percent economic. Population less than average for recent years and at low level. Slight increase expected, will lead to some important infestations in scattered groves. Highest districts west and east. CHAFF SCALE (Parlatoria pergandii) infested 38 percent of groves; 2 percent economic. Population below normal and at low level. Slight increase expected. Highest district south. AN ARMORED SCALE (Unaspis citri) in 11 percent of groves; most infestations lighter at this time. WHITEFLIES increased to moderate level normal for October. Slight additional increase expected. (W. A. Simanton (Citrus Expt. Sta., Lake Alfred)).

ORNAMENTALS

A CHRYSAUGID MOTH (Galasa nigrinodis) - VIRGINIA - Larvae severely girdling English boxwood in Richmond, Virginia Beach, Newport News, and Blacksburg. Reported for first time from Chesterfield and Montgomery Counties. (Weidhass, Isakson, Oct. 27).

NOCTUID MOTHS - FLORIDA - Spodoptera exigua and Trichoplusia ni extensively damaging large commercial gladiolus farm at Ft. Myers, Lee County; S. exigua dominant. (Cox, Nov. 1). Controls difficult due partly to pests under leaf sheaths at plant base. (Fla. Coop. Sur.).

HEMISPHERICAL SCALE (*Saissetia coffeae*) - CALIFORNIA - Heavy on gardenia nursery stock in San Diego, San Diego County. (Cal. Coop. Rpt.).

AN ARMORED SCALE (*Hemiberlesia lataniae*) - CALIFORNIA - Heavy on camellias in San Diego, San Diego County; prevalent in 1967. (Cal. Coop. Rpt.)

MEALYBUGS - CALIFORNIA - *Pseudococcus obscurus* heavy on rhododendron nursery stock in Millbrae, San Mateo County; moderate on lotus nursery stock in San Diego, San Diego County. *Planococcus citri* heavy on gardenia nursery stock in San Diego. (Cal. Coop. Rpt.).

CHRYSANTHEMUM APHID (*Macrosiphoniella sanborni*) - IOWA - Heavy on greenhouse chrysanthemums in Osage, Mitchell County. (Iowa Ins. Sur.).

FOREST AND SHADE TREES

FALL WEBWORM (*Hyphantria cunea*) - NEW MEXICO - Moderate to heavy in Luna County; completely defoliated some poplar trees. (Hare).

TWIG GIRDLER (*Oncideres cingulata*) - TEXAS - Moderate to heavy on elm trees in Brazos County. (Texas Coop. Rpt.).

NANTUCKET PINE TIP MOTH (*Rhyacionia frustrana*) - TEXAS - Infested young pine plantations in Dallas County. (Texas Coop. Rpt.).

MAN AND ANIMALS

MOSQUITOES - TEXAS - Populations in Jefferson County during October: *Culex salinarius* continued most numerous in Port Arthur area; *Aedes vexans* most numerous in Beaumont area; *Psorophora confinnis* and *Uranotaenia lowii* decreasing throughout; *Anopheles crucians* not found in northern half; *Aedes sollicitans*, *A. taeniorhynchus*, *Anopheles quadrimaculatus*, and *U. sapphirina* present. *Culiseta inornata* first reported October 20 near Beaumont. (Thompson). LOUISIANA - Larvae collected in Jefferson Parish October 27-November 2: *A. vexans*, *A. crucians*, *Culex pipiens quinquefasciatus*, *C. restuans*, and *C. salinarius*. Light trap collections low, *C. salinarius* dominant. (Stokes).

SCREW-WORM (*Cochliomyia hominivorax*) - Total of 22 cases reported in U.S. November 5-11 as follows: TEXAS - Bandera 2, Burnet 1, Comal 1, De Witt 1, Edwards 2, Hays 2, Kerr 1, Kinney 2, Maverick 3, Real 1, Travis 1, Uvalde 1, Webb 1. CALIFORNIA - Imperial 3. Total of 183 cases reported in portion of Barrier Zone in Republic of Mexico as follows: Territorio sur de Baja California 44, Sonora 5, Chihuahua 46, Coahuila 67, Nuevo Leon 6, Tamaulipas 15. Total of 23 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 36,572,000, Arizona 100,000, California 470,000, Mexico 59,103,600. (Anim. Health Div.).

STABLE FLY (*Stomoxys calcitrans*) - MISSISSIPPI - Ranged 10-12 per bull on 8 Black Angus confined to pens in Oktibbeha County. (Dinkins).

HORN FLY (*Haematobia irritans*) - MISSISSIPPI - Ranged 40-50 per head on 30 beef cattle in Oktibbeha County. (Dinkins). OKLAHOMA - Averaged less than 10 and 8 per head on cattle in Jackson and Tillman Counties, respectively. (Okla. Coop. Sur.).

WINTER TICK (*Dermacentor albipictus*) - OKLAHOMA - Averaged 50 per drag and 10-25 per head on deer in Cherokee County. (Okla. Coop. Sur.).

BENEFICIAL INSECTS

A EULOPHID WASP (Aphelinus semiflavus) - NEBRASKA - Specimens reared from sweetclover aphid at Lincoln, Lancaster County, in January 1966 and October 1967. Reared from sweetclover aphid in Saunders County and from spotted alfalfa aphid in Burt County in October 1967. This is a new State record. Det. by B. D. Burks. (Manglitz, Schalk).

DAMSEL BUGS (Nabis spp.) - ARKANSAS - Active in alfalfa and wheat in northwest area. (Boyer). ARIZONA - N. ferus increasing in Maricopa County alfalfa; 30 per 100 sweeps. (Ariz. Coop. Sur.).

GREEN LACEWINGS (Chrysopa spp.) - ARIZONA - Increasing in Pinal County alfalfa; 110 per 100 sweeps. (Ariz. Coop. Sur.).

FEDERAL & STATE PLANT PROTECTION PROGRAMS

GRASSHOPPERS - SOUTH DAKOTA - Damaging winter wheat in eastern Pennington County; up to 12 rows destroyed in some fields; controls applied to field margins. (Burge). IOWA - Counts higher than average in southeast and northwest areas. Favorable weather for egg laying this fall makes potential threat for 1968 if weather dry next May and June. (Iowa Ins. Inf., Oct. 23).

BOLL WEEVIL COMPLEX (Anthonomus grandis complex) - CALIFORNIA - Two larvae collected in 16-acre cottonfield at Indio, Riverside County. This is a new county record. This field is 102 miles northwest of Winterhaven, Imperial County, where pest first found in State in 1965. (Cal. Coop. Rpt.).

MEDITERRANEAN FRUIT FLY (Ceratitis capitata) - FLORIDA - Survey negative since initial specimen found at Miami Beach, October 10, 1967. (Fla. Coop. Sur.).

PINK BOLLWORM (Pectinophora gossypiella) - CALIFORNIA - Intensive survey revealed second larval infestation in San Joaquin Valley. Total of 4 larvae taken November 8 in same field in Comanche Point area, Kern County, where male taken October 20. (Cal. Coop. Rpt.). TEXAS - Increasing throughout State except in High Plains area. Worst statewide infestation in 4 years. Most damaging in Trans-Pecos area of western part of State. (Texas Coop. Rpt.). ARKANSAS - Larvae collected from gin trash in following counties: Cleburne, Calhoun, Columbia, Howard, Little River, Jefferson, Lafayette, Miller, Pulaski, and Union. Larvae taken from 6 gins in Jefferson County for new county record. (Shotts).

INSECT DETECTION

New State Records

CLOVER SEED WEEVIL (Miccotrogus picirostris) - MISSOURI - Adults swept from red clover in Schuyler and Sullivan Counties, July 18, 1967, by R. E. Munson and L. R. Hanning. Det. by R. E. Warner. (p. 1012).

A EULOPHID WASP (Aphelinus semiflavus) - NEBRASKA - Specimens reared from sweetclover aphid at Lincoln, Lancaster County, January 1966. Det. by B. D. Burks. (p. 1015).

New County Records

A CHRYSAUGID MOTH (Galasa nigrinodis) - VIRGINIA - Chesterfield and Montgomery Counties. (p. 1013).

BOLL WEEVIL COMPLEX (Anthonomus grandis complex) - CALIFORNIA - Riverside County. (p. 1015).

PINK BOLLWORM (Pectinophora gossypiella) - ARKANSAS - Jefferson County. (p. 1015).

HAWAII INSECT REPORT

Turf, Pasture - A BILLBUG (*Sphenophorus venatus vestitus*) damage to Kikuyu grass moderate at Paauilo, Hawaii Island; grubs and adults readily detected. Adults lightly scattered throughout ranch at Kahua, Hawaii Island; damage difficult to detect due to dry conditions. (Yoshioka). A PYRAUSTID MOTH (*Herpetogramma licarsisalis*) spreading in all of Oahu. Damage very noticeable in parks, lawns, and golf courses; has fed on Bermuda grass, Kikuyu grass, Panama paspalum, Pangola grass, California grass, Hilo grass, and Henrys crabgrass. *Tichogramma* sp., probably *minutum*, parasitized 90 percent of eggs collected at Hickam Air Force Base; no evidence of eggs or parasites in area 6 weeks ago. (Shinbara et al.).

Vegetables - CARMINE SPIDER MITE (*Tetranychus telarius*) moderate to heavy on snap beans and eggplants at Pearl City, Waianae, Waimanalo, and Kaaawa, on Oahu. Strong winds hamper sprays. (Funasaki). VAGRANT GRASSHOPPER (*Schistocerca vaga*) nymphs and adults moderate in snap bean planting at Maili, Oahu. Feeding damage light on pods. (Kitagawa). MELON FLY (*Dacus cucurbitae*) adults light to moderate on bitter melon at Maili and Waianae, Oahu. Larvae heavy in 75 percent of fruit at Maili; unmarketable. Light oviposition injury at Waianae. (Nakao).

Forest and Shade Trees - All stages of BLACK TWIG BORER (*Xylosandrus compactus*) heavy on Australian redcedar (*Toona ciliata* var. *australis*) and neneleau (*Rhus chinensis* var. *sandwicensis*) in Waiakea area of Hilo, Hawaii Island; dieback of branchlets conspicuous. Neneleau is a new host record. (Yoshioka).

Man and Animals - During October on Oahu, 47 light traps caught 390 *Aedes vexans nocturnus* (averaged 8.3 per trap) and 7,610 *Culex pipiens quinquefasciatus* (averaged 162.0). *Aedes* low in all areas; *Culex* highest at Kailua, Kahuku, and Haleiwa. (Mosq. Cont. Br., Dept. of Health).

Beneficial Insects - PUNCTURE-VINE STEM WEEVIL (*Microlarinus lypriformis*) larvae heavy on puncture-vine (*Tribulus cistoides*) along beaches at Kihei, Maui; vines dying. (Miyahira). A CECIDOMYIID MIDGE (*Zeuxidiplosis giardi*) and a KLAMATH-WEED BEETLE (*Chrysolina quadrigemina*) increasing established areas on Klamath-weed at Mt. Hualalai, Hawaii Island; adults heavy far from original release site. (Yoshioka).

Miscellaneous Pests - Poison bait for GIANT AFRICAN SNAIL (*Achatina fulica*) broadcast by helicopter over local infestation at Kona, Hawaii Island, in mid-October; spot treatment and second aerial broadcast will be made if necessary. (Yoshioka). Adults of a LYGAEID BUG (*Nysius* sp.) very heavy on common purslane (*Portulaca oleracea*) in sweet cornfield at Nanakuli, Oahu. (Shinbara).

LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville - 11/7, BL - Armyworm (*Pseudaletia unipuncta*) 2, black cutworm (*Agrotis ipsilon*) 2, granulate cutworm (*Feltia subterranea*) 1. SOUTH CAROLINA - Charleston - 10/30-11/5, BL, 37-82°F, precip. 0.15 - Armyworm 220, black cutworm 120, corn earworm (*Heliothis zea*) 8, fall armyworm (*Spodoptera frugiperda*) 3, ganulate cutworm 2, variegated cutworm (*Peridroma saucia*) 2, yellow-striped armyworm (*Prodenia ornithogalli*) 2. TEXAS - Waco - 11/3-9, BL - Armyworm 297, beet armyworm (*S. exigua*) 4, black cutworm 4, cabbage looper (*Trichoplusia ni*) 3, fall armyworm 28, granulate cutworm 62, tobacco budworm (*H. virescens*) 1, yellow-striped armyworm 4, variegated cutworm 27.

CORRECTIONS

CEIR 17(44):971 (Deciduous Fruits and Nuts), 974 (Insect Detection) - A SEED CHALCID (Megastigmus pistaceae) should read (Megastigmus pistaciae).

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